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DMS QPL

MCDONNELL DOUGLAS CORPORATION

U.S. DEPARTMENT OF LABOR
WORKPLACE STANDARDS ADMINISTRATION
BUREAU OF LABOR STANDARDS

FORM NO OSHA-20 (MODIFIED)
MAY 1971

MDC CONTROL NO. 1850

MATERIAL SAFETY DATA SHEET

SECTION I: MATERIAL AND MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
Products Research & Chemical Corporation	(213) 849-3992

ADDRESS (NUMBER, STREET, CITY, STATE AND ZIP CODE)
2919 Empire Ave., Burbank, Calif. 91504

CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS
Urethane coating.	PR-1563

CHEMICAL FAMILY	FORMULA
N/A	N/A

SECTION II: HAZARDOUS INGREDIENTS*

PAINTS, PRESERVATIVES/SOLVENTS	%	TLV (UNITS)	ALLOYS AND METALLIC COATINGS	%	TLV (UNITS)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS Methyl ethyl ketone	50	200ppm	FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES*	%	TLV (UNITS)
Polymethylene polyphenyl isocyanate.	10	0.02 ppm
2 Nitropropane	10	25 ppm

SECTION III: PHYSICAL DATA

BOILING POINT (°F)	176°F	SPECIFIC GRAVITY (H_2O = 1)	0.99
VAPOR PRESSURE (mm Hg.)	119mm	PERCENT VOLATILE BY VOLUME (%)	69%
VAPOR DENSITY (AIR = 1)	2.5	EVAPORATION RATE (But. Acet. = 1)	4.6
SOLUBILITY IN WATER	Slight		

APPEARANCE AND ODOR: Yellow liquid; pungent odor.

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED)	FLAMMABLE LIMITS	Lel	Uel
21°F (TCC)		1.8	10.0

EXTINGUISHING MEDIA: Foam, CO_2, dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES:

UNUSUAL FIRE AND EXPLOSION HAZARDS: Toxic vapors of isocyanate.

*PLEASE DO NOT USE GENERALIZATIONS, SUCH AS PETROLEUM HYDROCARBONS, ALCOHOL, KETONES. USE SPECIFIC CHEMICAL NAMES, SUCH AS METHANOL, BENZENE, PERCHLOROETHYLENE.

SECTION V: HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

0.02 ppm, based on the polyphenyl isocyanate.

EFFECTS OF OVEREXPOSURE

Irritation to mucous membranes. May react locally with tissue.

Normally the irritation will prevent excessive inhalation.

EMERGENCY AND FIRST AID PROCEDURES

SKIN: Wash thoroughly with soap and water.

EYES: Immediately irrigate with plenty of water; see a physician.

INHALATION: Remove to fresh air.

SECTION VI: REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (MATERIALS TO AVOID)

Avoid contact with oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS

Toxic fumes derived from chlorinated hydrocarbons and isocyanate.

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII: SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

While wearing rubber gloves, mop up with rags.

Provide adequate ventilation to dispel vapors.

Use a chemical cartridge or air-line respirator if necessary.

WASTE DISPOSAL METHOD

Tightly closed containers in normal trash.

Do not incinerate.

SECTION VIII: SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE)

Chemical cartridge or air-line respirator.

VENTILATION	LOCAL EXHAUST: Adequate to minimize vapors.	SPECIAL
	MECHANICAL (GENERAL): Adequate to minimize vapors.	OTHER

PROTECTIVE GLOVES: Rubber or poly gloves.	EYE PROTECTION: Chemical goggles or face shield.

OTHER PROTECTIVE EQUIPMENT

SECTION IX: SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store in tightly closed containers in dry area. Keep away from heat, sparks and open flame.

OTHER PRECAUTIONS

After using product, wash hands thoroughly before eating or smoking.

PREPARED BY F. H. Yonkers

3-22-73
DATE

DAC 25-1837 (REV. 8-70)

AZARDOUS MATERIALS DATA SHE
(PLEASE COMPLETE APPLICABLE SECTIONS)

1850

1. PRODUCT NAME, NUMBER, SYNONYM: PR-1563 (Fuel Tank Coating)
2. MANUFACTURER'S NAME: Products Research & Chemical Corporation
3. MANUFACTURER'S ADDRESS: 2919 Empire Ave.,Burbank, Calif. 91504
4. PROCEDURE IN CASE OF BREAKAGE OR LEAKAGE: Mop up with rags while wearing rubber gloves. Provide adequate ventilation to dispel vapors. Use a respirator if necessary.
5. TRANSPORTATION AND STORAGE REQUIREMENTS: Keep in tightly closed containers when not in use. Store in dry, sheltered area. Keep away from heat, sparks, and open flame.
6. FIRST AID TREATMENT:
   A. SKIN CONTACT: Wipe off excess with MEK, then wash thoroughly with soap and water.
   B. EYE CONTACT: Immediately irrigate with plenty of water; see a physician.
   C. INHALATION: Remove affected personnel to fresh air.
   D. ANTIDOTE IN CASE OF SWALLOWING: Induce vomiting; see a physician.
7. PHYSIOLOGICAL PROPERTIES:
   A. ACUTE ORAL TOXICITY: Highly hazardous, causes dehydation of tissues.
   B. LOCAL EFFECTS UPON EYES: Irritation; may react locally with tissue.
   C. LOCAL EFFECTS UPON SKIN: Irritation; may react locally with tissue.
   D. ESTIMATE OF ACUTE HAZARD BY INHALATION (VOLATILE MATERIALS): Irritation to respiratory tract. This irritation usually prevents excessive inhalation.
   E. WARNING PROPERTIES (ODOR, IRRITATION TO EYES, NOSE OR THROAT): Pungent odor; chlorinated hydrocarbons and isocyanates.
   F. ESTIMATED THRESHOLD LIMIT VALUE (IF NOT ON CURRENT LIST BY AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS): 75 ppm in air, based on chlorobenzene.
8. CHEMICAL AND PHYSICAL PROPERTIES:
   A. SPECIFIC GRAVITY (WATER = 1) 1.07 B. VAPOR DENSITY (AIR =1) 3.9
   C. VAPOR PRESSURE mm Hg AT 25°C. 10 mm at 22.2°C D. pH Unk.
   E. CORROSIVE ACTION ON COMMON MATERIALS SUCH AS: ALUMINUM, MAGNESIUM, PLEXIGLAS, RUBBER, LACQUERS, ENAMELS, FABRICS: This product will craze plexiglas, swell rubber, and lift lacquers and enamels.

F. DOES THE MATERIAL DECOMPOS. IEN EXPOSED TO AIR? WATER? HEAT? STRON XIDIZERS? Can react with water and oxidizing materials.

G. FOR MIXTURES GIVE THE PERCENTAGE COMPOSITION OF INGREDIENTS:

COMPOUND	PERCENT
Polyphenyl isocyanate	10 - 20%
Chlorobenzene	5 - 10%
Methyl ethyl ketone	20 - 35%

NOTE: GENERALIZATIONS SUCH AS PETROLEUM HYDROCARBONS, ALCOHOL, KETONES, CHLORINATED HYDROCARBONS, ETC., ARE NOT ADEQUATE FOR TOXICOLOGICAL EVALUATION. PROPER CHEMICAL NAMES MUST BE KNOWN.

H. DOES THE MATERIAL GENERATE HEAT THROUGH POLYMERIZATION OR CONDENSATION? No

9. PRECAUTIONS FOR NORMAL CONDITIONS OF USE: Keep containers closed when not in use. Use in well-ventilated area.

10. RECOMMENDED PROTECTIVE EQUIPMENT: Goggles or face shield; rubber gloves; fresh air supplied respirator.

11. A. FLASHPOINT °F: CLOSED CUP 21°F ; OPEN CUP 35°F ; IF F.P. CHANGES DURING EVAPORATION GIVE DATA:

B. EXPLOSIVE LIMITS (% VOL. AIR): LOWER 1.8% ; UPPER 10%

C. SUSCEPTIBILITY TO SPONTANEOUS HEATINGS: YES ; NO X

D. FIRE POINT °F Unk. ; AUTO IGNITION TEMPERATURE °F 960°F

E. VAPOR DENSITY 2.5

F. WHAT PRODUCTS MIGHT BE FORMED IN THE EVENT OF FIRE OR ABNORMAL TEMPERATURES? Toxic vapors derived from amines.

G. SUITABLE EXTINGUISHING AGENTS: Foam, CO_2, dry chemical.

12. INFORMATION FURNISHED BY: F.H. Yonkers

TITLE: Methods & Standards Administrator

COMPANY: Products Research & Chemical Corp.

ADDRESS: 2919 Empire Ave., Burbank, Calif. 91504

DATE: August 7, 1972

NOTE: INFORMATION IN REGARD TO A MATERIAL'S COMPOSITION WILL BE USED FOR THE PURPOSE OF COMPLYING WITH LOCAL, STATE AND FEDERAL ORDINANCES, LAWS AND CODES, AND REQUIREMENTS OF GOVERNMENTAL AGENCIES.

THE COMPLETED FORM SHOULD BE RETURNED TO PURCHASING, DOUGLAS AIRCRAFT DIVISION, LONG BEACH, CALIF. 90801.

DMS 1850 ty 2 Rev C

020-707

HAZARDOUS MATERIALS DATA SHEET
(PLEASE COMPLETE APPLICABLE SECTIONS)

1. PRODUCT NAME, NUMBER, SYNONYM: Integral Fuel Tank Coating, Solvent Reducer DMS ~~1825~~ 1850

2. MANUFACTURER'S NAME: DeSOTO, INC.

3. MANUFACTURER'S ADDRESS: 4th and Cedar Streets, Berkeley, Ca. 94710

4. PROCEDURE IN CASE OF BREAKAGE OR LEAKAGE: Remove damaged containers. Mop up excessive spillage.

5. TRANSPORTATION AND STORAGE REQUIREMENTS: Requires I.C.C. Red Label. Storage temperature range 40-90°F. Store indoors.

6. FIRST AID TREATMENT:

A. SKIN CONTACT: Wash with soap and water.

B. EYE CONTACT: Flush with water, see a physician

C. INHALATION: Remove from vapors. Provide adequate ventilation

D. ANTIDOTE IN CASE OF SWALLOWING: See a physician

7. PHYSIOLOGICAL PROPERTIES:

A. ACUTE ORAL TOXICITY: Not known but probably low to moderate

B. LOCAL EFFECTS UPON EYES: May cause tissue damage

C. LOCAL EFFECTS UPON SKIN: May cause solvent type dermatitis

D. ESTIMATE OF ACUTE HAZARD BY INHALATION (VOLATILE MATERIALS): Not known but probably low

E. WARNING PROPERTIES (ODOR, IRRITATION TO EYES, NOSE OR THROAT): Material may irritate eyes, nose, skin or respiratory tract

F. ESTIMATED THRESHOLD LIMIT VALUE (IF NOT ON CURRENT LIST BY AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS): Not known, estimate 200 PPM (solvent vapors)

8. CHEMICAL AND PHYSICAL PROPERTIES:

A. SPECIFIC GRAVITY (WATER = 1) 0.830 B. VAPOR DENSITY (AIR =1) _____

C. VAPOR PRESSURE mm Hg AT 25°C. approx. 100 MM D. pH _____

E. CORROSIVE ACTION ON COMMON MATERIALS SUCH AS: ALUMINUM, MAGNESIUM, PLEXIGLAS, RUBBER, LACQUERS, ENAMELS, FABRICS:
May damage plastics, plexiglas, some lacquers and synthetic fabrics

F. DOES THE MATERIAL DECOMPO WHEN EXPOSED TO AIR? WATER? HEAT? STRO OXIDIZERS? No

G. FOR MIXTURES GIVE THE PERCENTAGE COMPOSITION OF INGREDIENTS:

COMPOUND	PERCENT
Methyl Ethyl Ketone	77.2
Cyclohexanone	22.8

NOTE: GENERALIZATIONS SUCH AS PETROLEUM HYDROCARBONS, ALCOHOL, KETONES, CHLORINATED HYDROCARBONS, ETC., ARE NOT ADEQUATE FOR TOXICOLOGICAL EVALUATION. PROPER CHEMICAL NAMES MUST BE KNOWN.

H. DOES THE MATERIAL GENERATE HEAT THROUGH POLYMERIZATION OR CONDENSATION? No

9. PRECAUTIONS FOR NORMAL CONDITIONS OF USE: Normal precautions associated with using high vapor pressure, low flash point solvents

10. RECOMMENDED PROTECTIVE EQUIPMENT: Adequate ventilation, air mask, protective clothing, gloves, eye protection.

11. A. FLASHPOINT °F: CLOSED CUP _____ ; OPEN CUP 22 ; IF F.P. CHANGES DURING EVAPORATION GIVE DATA:

B. EXPLOSIVE LIMITS (% VOL. AIR): LOWER _____ ; UPPER _____

C. SUSCEPTIBILITY TO SPONTANEOUS HEATINGS: YES _____ ; NO X

D. FIRE POINT °F _____ ; AUTO IGNITION TEMPERATURE °F _____

E. VAPOR DENSITY _____

F. WHAT PRODUCTS MIGHT BE FORMED IN THE EVENT OF FIRE OR ABNORMAL TEMPERATURES? CO_2, H_2O, CO

G. SUITABLE EXTINGUISHING AGENTS: Dry Chemical, CO_2, Foam

12. INFORMATION FURNISHED BY: James D. Miller

TITLE: Group Leader - Aerospace Finishes

COMPANY: DeSOTO, INC.

ADDRESS: 4th and Cedar Streets, Berkeley, Ca. 94710

DATE: July 20, 1972

NOTE: INFORMATION IN REGARD TO A MATERIAL'S COMPOSITION WILL BE USED FOR THE PURPOSE OF COMPLYING WITH LOCAL, STATE AND FEDERAL ORDINANCES, LAWS AND CODES, AND REQUIREMENTS OF GOVERNMENTAL AGENCIES.

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